INDEX TO VOLUME XVI OF *GEOPHYSICS* FOR 1951

INDEX BY AUTHOR

	Vol.	No.	Page
Agocs, W. B. Least Squares Residual Anomaly Determination	XVI	4	686
Bryan, Carl L. Regional Geology and Geophysics of the Ark-La-Tex Area	XVI	3	401
Buford, T. B. and Jones, P. H. Electric Logging Applied to Ground-Water Exploration	XVI	1	115
Burg, K. E., Ewing, Maurice, Press, Frank and Stulken, E. J. Seismic Wave Guide Phenomenon, A	XVI	4	594
Chapman, Sydney. Survey of the Present Problems of the Magnetism of the Earth	XVI	4	716
Clark, A. R. and Salt, D. J. Investigation of Earth Resistivities in the Vicinity of a Diamond Drill Hole, The	XVI	4	659
Clayton, Neal. Geology and Geophysics of the North Snyder Area, Scurry County, Texas	XVI	1	1
Cross, J. H. and Hughes, Darrell S. Elastic Wave Velocities in Rocks at High Pressures and Temperatures	XVI	4	577
Crumrine, Kenneth C. and Palmer, John E. Hydrostatic Level for Elevation Surveying	XVI	3	486
Dobrin, Milton B. Dispersion in Seismic Surface Waves	XVI	1	63
Dyk, Karl and Eisler, J. D. Study of the Influence of Background Noise on Reflection Picking, A	XVI	3	450
Eckhardt, E. A. Geophysical Activity in 1950	XVI	3	391
Eisler, J. D. and Dyk, Karl. Study of the Influence of Background Noise on Reflection Picking, A	XVI	3	450
Elkins, Thomas A. Second Derivative Method of Gravity Interpretations, The	XVI	1	29
Ewing, Maurice, Burg, K. E., Press, Frank and Stulken, E. J. Seismic Wave Guide Phenomenon, A	XVI	4	594
Ewing, Maurice and Press, Frank. Ground Roll Coupling to Atmospheric Compressional Waves	XVI	3	416
Faul, Henry, Goodman, Clark and Tittle, C. W. Neutron Logging of Drill Holes: the Neutron-Neutron Method	XVI	4	626
Faul, Henry and Tittle, C. W. Logging of Drill Holes by the Neutron, Gamma Method, and Gamma Ray Scattering	XVI	2	260
Faust, L. Y. Seismic Velocity as a Function of Depth and Geologic Time	XVI	2	192
Garland, G. D. Combined Analysis of Gravity and Magnetic Anomalies	XVI	1	51
Gassman, Fritz. Elastic Waves Through a Packing of Spheres	XVI	4	673
Geyer, Richard A. Geomagnetic Survey of a Portion of Southeastern New York State	XVI	2	228
Goguel, Jean M. Seismic Refraction with Variable Velocity	XVI	1	81
Goodman, Clark, Tittle, C. W. and Faul, Henry. Neutron Logging of Drill Holes: the Neutron-Neutron Method	XVI	4	626
Heiskanen, W. World-Wide Gravity Program of the Mapping and Charting Research Laboratory of Ohio State University, The	XVI	4	697
Hollingsworth, W. E. Geophysical History of the Delhi Field, Richland, Franklin, and Madison Parishes, Louisiana	XVI	2	185
Hughes, Darrell S. and Cross, J. H. Elastic Wave Velocities in Rocks at High Pressures and Temperatures	XVI	4	577
Junger, Arne. Deep Basement Reflections in Big Horn County, Montana	XVI	3	499
Krey, Th. Approximate Correction Method for Refraction in Reflection Seismic Prospecting	XVI	3	468
Lyons, Paul L. Seismic Reflection Quality Map of the United States, A	XVI	3	506
Macelwane, James B. Annual Survey of Geophysical Education, 1950–1951	XVI	3	511
Officer, Charles B., Jr. Normal Mode Propagation in Three Layered Liquid Half-Space by Ray Theory	XVI	2	207
Palmer, John E. and Crumrine, Kenneth C. Hydrostatic Level for Elevation Surveying	XVI	3	486
Prescott, H. R. Seismic Record Sections	XVI	4	613
Press, Frank, Burg, K. E., Ewing, Maurice and Stulken, E. J. Seismic Wave Guide Phenomenon, A	XVI	4	594
Press, Frank and Ewing, Maurice. Ground Roll Coupling to Atmospheric Compressional Waves	XVI	3	416
Rosaire, E. E. Studies in Non-Structural Petroleum Prospecting. I. A Non-Structural Working Hypothesis for Petroleum Prospecting	XVI	3	456

	Vol.	No.	Page
Salt, D. J. and Clark, A. R. Investigation of Earth Resistivities in the Vicinity of a Diamond Drill Hole, The	XVI	4	659
Slichter, L. B. Electromagnetic Interpretation Problem in Geophysics, An	XVI	3	431
Smith, A. E. Graphic Adjustment by Least Squares	XVI	2	222
Stulken, E. J., Burg, K. E., Ewing, Maurice and Press, Frank. Seismic Wave Guide Phenomenon, A	XVI	4	594
Swan, B. G. Index of Wells Shot for Velocity (Third Supplement)	XVI	1	140
Tittle, C. W. and Faul, Henry. Logging of Drill Holes by Neutron, Gamma Method, and Gamma Ray Scattering	XVI	2	260
Tittle, C. W., Faul, Henry and Goodman, Clark. Neutron Logging of Drill Holes: the Neutron-Neutron Method	XVI	4	626
Tuman, V. S. Telluric Method of Prospecting and Its Limitations under Certain Geologic Conditions, The	XVI	1	102
Udden, A. J. Historical Note on the paper "Suggestions of a New Method of Making Underground Observations"	XVI	4	715
Valerius, C. N. and Von Croy, Stefan. Case History of Benton Field, Bossier Parish, Louisiana	XVI	1	14
Von Croy, Stefan and Valerius, C. N. Case History of Benton Field, Bossier Parish, Louisiana	XVI	1	14
Wagoner, George E. Geophysical Frontiers	XVI	3	385
Wait, James R. Conducting Sphere in a Time Varying Magnetic Field, A	XVI	4	666
Wait, James R. Transient Electromagnetic Propagation in a Conducting Medium	XVI	2	213
Wilson, John H. Geophysical Evaluation of the Marfa Basin of Texas	XVI	3	494

INDEX BY SUBJECT

Exploration—General

	Vol.	No.	Page
Geophysical Activity in 1950. E. A. Eckhardt	XVI	3	391
Geophysical Evaluation of the Marfa Basin of Texas. John A. Wilson	XVI	3	394
Geophysical Frontiers. George E. Wagoner	XVI	3	385
Regional Geology and Geophysics of the Ark-La-Tex Area. Carl L. Bryan	XVI	3	401

Seismology

A. Areal

1. Reflection Applications

Deep Basement Reflections in Big Horn County, Montana. Arne Junger	XVI	3	499
Historical Note on the paper "Suggestions of a New Method of Making Underground Observations" by A. J. Udden	XVI	4	715
Seismic Record Sections. H. R. Prescott	XVI	4	613
Seismic Reflection Quality Map of the United States, A. Paul L. Lyons	XVI	3	506

B. General

Elastic Wave Velocities in Rocks at High Pressures and Temperatures. J. H. Cross and Darrell S. Hughes	XVI	4	577
Study of the Influence of Background Noise on Reflection Picking, A. Karl Dyk and J. D. Eisler	XVI	3	450

D. Theory and Technique

Approximate Correction Method for Refraction in Reflection Seismic Prospecting. Th. Krey	XVI	3	468
Dispersion in Seismic Surface Waves. Milton B. Dobrin	XVI	1	63
Elastic Waves Through a Packing of Spheres. Fritz Gassman	XVI	4	673
Ground Roll Coupling to Atmospheric Compressional Waves. Frank Press and Maurice Ewing	XVI	3	416
Normal Mode Propagation in Three Layered Liquid Half-Space by Ray Theory. Charles B. Officer, Jr.	XVI	2	207
Seismic Refraction with Variable Velocity. Jean M. Goguel	XVI	1	81
Seismic Velocity as a Function of Depth and Geologic Time. L. Y. Faust	XVI	2	192
Seismic Wave Guide Phenomenon, A. K. E. Burg, Maurice Ewing, Frank Press and E. J. Stulken	XVI	4	594

Gravimetric Methods

B. General	Vol.	No.	Page
World-Wide Gravity Program of the Mapping and Charting Research Laboratory of Ohio State University, The. W. Heiskanen	XVI	4	697

D. Theory and Technique

Combined Analysis of Gravity and Magnetic Anomalies. G. D. Garland	XVI	1	51
Graphic Adjustment by Least Squares. A. E. Smith	XVI	2	222
Least Squares Residual Anomaly Determination. W. B. Agocs	XVI	4	686
Second Derivative Method of Gravity Interpretation, The. Thomas A. Elkins	XVI	1	29

Magnetic Methods

D. Theory and Technique

Combined Analysis of Gravity and Magnetic Anomalies. G. D. Garland	XVI	1	51
Geomagnetic Survey of a Portion of Southeastern New York State. Richard A. Geyer	XVI	2	228
Survey of the Present Problems of the Magnetism of the Earth. Sydney Chapman	XVI	4	716

Electrical Methods

Conducting Sphere in a Time Varying Magnetic Field, A. James R. Wait	XVI	4	666
Electromagnetic Interpretation Problem in Geophysics, An. L. B. Slichter	XVI	3	431
Investigation of Earth Resistivities in the Vicinity of a Diamond Drill Hole, The. A. R. Clark and D. J. Salt	XVI	4	659
Telluric Method of Prospecting and its Limitations Under Certain Geologic Conditions, The. V. S. Tuman	XVI	1	102
Transient Electromagnetic Propagation in a Conducting Medium. James R. Wait	XVI	2	213

Geochemical Methods

Studies in Non-Structural Petroleum Prospecting. I. A Non-Structural Working Hypothesis for Petroleum Prospecting. E. E. Rosaire	XVI	3	456

Surveying Techniques

Hydrostatic Level for Elevation Surveying. Kenneth C. Crumrine and John E. Palmer	XVI	3	486

Well Measurements

Electric Logging Applied to Ground-Water Exploration. T. B. Buford and P. H. Jones	XVI	1	115
Index of Wells Shot for Velocity (Third Supplement). B. G. Swan	XVI	1	140
Logging of Drill Holes by the Neutron, Gamma Method, and Gamma Ray Scattering. Henry Faul and C. W. Tittle	XVI	2	260
Neutron Logging of Drill Holes: the Neutron-Neutron Method. C. W. Tittle, Henry Faul and Clark Goodman	XVI	4	626

Case Histories

Case History of Benton Field, Bossier Parish, Louisiana. C. N. Valerius and Stefan Von Croy	XVI	1	14
Geology and Geophysics of the North Snyder Area, Scurry County, Texas. Neal Clayton	XVI	1	1
Geophysical History of the Delhi Field, Richland, Franklin, and Madison Parishes, Louisiana. W. E. Hollingsworth	XVI	2	185

Miscellaneous

Annual Survey of Geophysical Education, 1950–1951. James B. Macelwane	XVI	3	511

Society Round Table

A. Authors' Biographies and Photographs

Agocs, W. B.	XVI	4	721
Bryan, Carl L.	XVI	3	538
Buford, Thomas B.	XVI	1	172
Burg, Kenneth E.	XVI	4	721
Chapman, Sydney	XVI	4	722
Clayton, Neal	XVI	1	172
Cross, J. H.	XVI	4	722
Dyk, Karl	XVI	3	538
Eisler, J. D.	XVI	3	539

	Vol.	No.	Page
Faul, Henry	XVI	2	295
Faust, L. Y.	XVI	2	295
Garland, G. D.	XVI	1	173
Gassman, Fritz	XVI	4	723
Goguel, Jean M.	XVI	1	173
Goodman, Clark	XVI	4	723
Heiskanen, W.	XVI	4	724
Hughes, Darrell S.	VXI	4	724
Krey, Theodor	XVI	3	539
Palmer, John E.	XVI	3	540
Prescott, H. R.	XVI	4	725
Rosaire, E. E.	XVI	4	731
Salt, D. J.	XVI	4	725
Smith, A. E.	XVI	2	296
Stulken, E. J.	XVI	4	725
Tittle, C. W.	XVI	2	296
Tuman, V. S.	XVI	1	174
Valerius, C. N.	XVI	1	175
Von Croy, Stefan	XVI	1	175
B. Constitution and By-Laws			
Report of Special Constitution Committee	XVI	1	180
Amendments to the Bylaws	XVI	2	314
Constitution and Bylaws	XVI	3	568
C. Meetings, Annual and Regional			
Joint Regional Exploration Meeting, Fort Worth, 1950	XVI	2	309
Announcements of Regional Meetings	XVI	3	564
Eastern Regional Meeting	XVI	4	732
Annual Pacific Coast Meeting	XVI	4	733
Annual Midwestern Regional Meeting	XVI	4	733
Twenty-Second Annual Meeting	XVI	4	733
Annual Gulf Coast Meeting	XVI	4	734
1951 Annual, St. Louis, April 23–26			
Minutes of Annual Business Meeting	XVI	3	542
Papers Presented at the Twenty-first Annual Meeting	XVI	3	555
D. Membership Lists			
Membership Applications Approved for Publication	XVI	1	176
———	XVI	2	305
———	XVI	3	541
———	XVI	4	726
Membership List	XVI	2	317
E. Memorials			
Herman Shaw, by R. Davies	XVI	2	297
William Gilmore Smiley, Jr., by W. E. Hollingsworth	XVI	2	299
George Watson Carr, by W. H. Newton	XVI	2	301
John Francis Gallie, by Felix A. Vogel, Jr.	XVI	2	303
F. Officers			
Officers for the Year Ending March 24, 1952	XVI	3	545
Nominees for 1952–1953 Executive Committee	XVI	4	728
G. Publications Received	XVI	1	171
———	XVI	2	294
———	XVI	3	534
———	XVI	4	714
H. Secretary-Treasurer's Reports			
Report of Secretary-Treasurer	XVI	3	544
I. Statement of Ownership	XVI	1	184
J. Reviews and New Publications	XVI	1	159
———	XVI	2	283
———	XVI	3	524
———	XVI	4	707